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ABSTRACT

This packet of materials was developed (1) to address the liability concerns of woodworking instructors by providing safety instruction materials and tests for limited English proficient (LEP) or Spanish-speaking students, and (2) to provide some ideas, strategies, and resources for working effectively with LEP students in the vocational classroom. Section I includes instructional strategies that can be used when working with LEP students. Section II contains the woodworking safety tests in both Spanish and English. Subjects include general safety rules, band saw, jig saw, table saw, radial arm saw, saber saw, portable circular saw, jointer, planer, lathe, drill press, portable electric drill, router, and sanders. An answer key is included. (KC)

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ED298258

WOODWORKING SAFETY

A GUIDE FOR TEACHERS OF LIMITED ENGLISH PROFICIENT STUDENTS

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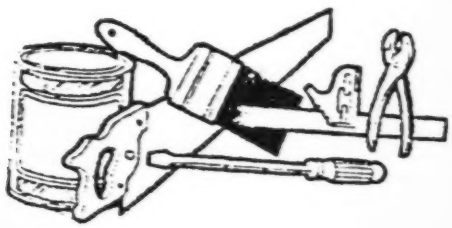

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J.T.

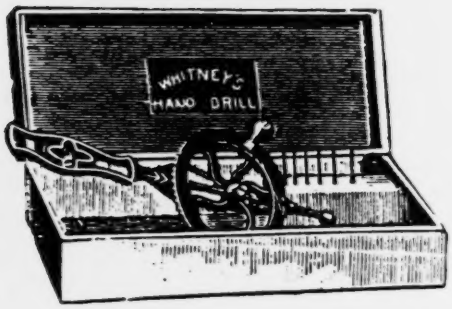


TABLE OF CONTENTS

Overview.....1

I Instructional Strategies.....3

Communication.....3

Adapting Instruction.....4

Adjusting Materials.....6

Testing the LEP Student.....8

II Safety Materials.....11

General Safety Rules.....13
Reglas Generales de Seguridad.....15

Band Saw.....17
Serrucho de Banda.....18

Jig Saw.....19
Sierra Mechanica.....20

Table Saw (Circular Saw).....21
Serrucho Circular.....22

Radial Arm Saw.....23
Serrucho Radial de Brazo.....25

Saber Saw.....27
Serrucho de Sable.....28

Portable Circular Saw (Skill Saw).....29
Serrucho Circular Portatil.....30

Jointer.....31
Juntera.....32

Planer.....33
Acepillador.....34

Lathe.....35
Banco de Carpintero.....36

Drill Press.....37
Taladro de Prensa.....38

Portable Electric Drill.....39
Taladro Portatil.....40

Router.....41
Cepillo de Machihembrar.....42

Sanders.....43
Lijadores 44

Answer Key.....45

OVERVIEW

Limited English proficient (LEP) students represent a growing population in Umatilla County. Because of the tradition of hands-on instruction and personal attention, LEP students are frequently placed in vocational education classes. This packet of materials was developed as a result of the concern expressed by vocational education teachers over safety instruction for LEP students. The packet has two basic goals: 1) to address the liability concerns of woodworking instructors by providing safety instruction materials and tests for Spanish speaking students; 2) to provide some ideas, strategies, and resources for working effectively with LEP students in the classroom.

This packet provides woodworking teachers with alternative instructional materials for Spanish speaking students. Although LEP students will vary considerably in their proficiency in understanding, speaking, reading and writing English, they should be learning the same curriculum content as other vocational students, but the methods, techniques, materials and instructional time required are likely to be different. The key to effective instruction for LEP students is flexibility. This packet attempts to aid teachers in increasing that flexibility.

Section I includes instructional strategies that can be used when working with LEP students. Section II contains the woodworking safety tests in both Spanish and English. Safety instruction booklets printed in Spanish and English are also included with this packet.

SECTION I

INSTRUCTIONAL STRATEGIES

There is no question that a non-English speaking student in the classroom is a challenge to the teacher. This section presents strategies that can help to ease the student's adjustment to the classroom and increase his/her chances for academic success. Included are suggestions to improve the comprehensibility of language, techniques for adapting instruction and materials, and suggestions for testing limited English proficient (LEP) students. There is no simple solution, but the following suggestions may be useful to teachers of limited English proficient (LEP) students.

Communication

1. LEP students can generally understand more English than they can speak.

2. Speak slowly and clearly. Use natural English. Louder English isn't any easier to understand, neither is broken English.

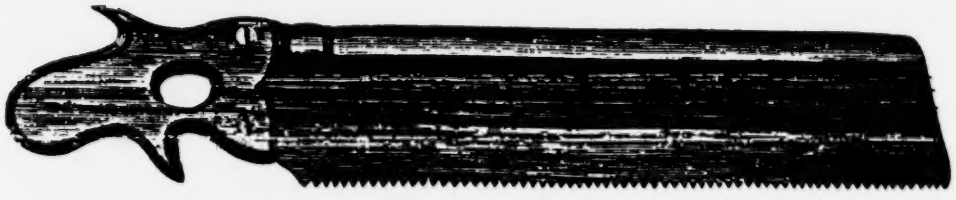
3. Avoid idioms like the plague.

4. Use simple present tense and avoid long complex sentences.

5. Use gestures, visuals, and body language to help you communicate.

6. Focus on communication. If you understand what the student is saying, don't worry about the grammar.

7. Use an echo technique if you must correct oral language errors. Repeat the student's words in correct English.



8. Team a LEP student with a bilingual student of the same language background. If a bilingual student is not available, consider assigning an English speaking "buddy" to help the LEP student.

   A. The buddy should provide a good model of English

   B. Be careful not to overtax the abilities of the buddy. It is a lot of responsibility for a student to translate assignments for a LEP student and still manage to complete the assignments him/herself.

   C. Define the duties of the buddy. A buddy can:

      a. explain assignment instructions

      b. show student prescribed methods for paper heading, etc.

      c. be available to answer questions

      e. orient the student to classroom procedures.

   D. A buddy of the same sex as the LEP student is probably the best choice.

Adapting Instruction

Limited English proficient (LEP) students by definition do not have native command of English. The language itself cannot be expected to convey messages effectively without the help of accompanying clues during content instruction. The following describes techniques that can help the content teacher make instruction more meaningful for LEP students.

1. Utilize hands-on activities whenever possible in place of assignments that require extensive reading or writing.

2. Use demonstrations.

3. Present concepts using as many different kinds of media (films, slides, cassette tapes, etc.) as possible.

4. Use alternatives to the lecture whenever possible. Try to limit the length of the lecture. It is very difficult for limited English proficient (LEP) students to maintain the high level of concentration necessary to understand English for an entire period. When the lecture format is necessary, Try to:

   A. Speak slowly and clearly.

   B. Avoid slang.

   C. Be consistent in your choice of language.

   D. Use body language and gestures to help clarify meaning.

   E. Write key vocabulary on an overhead projector or the chalkboard.

   F. Provide an outline.

   G. Check the students' comprehension frequently by having students paraphrase or demonstrate for understanding.

5. Use concrete materials and experiences to teach new concepts and language.

6. Present the information in small steps, sequentially if possible.

7. Have a student with good note taking skills use carbon paper to make an "instant" copy of notes for the LEP student.

ADJUSTING MATERIALS

Textbooks and printed materials present special problems for LEP students. Even students who appear fluent in conversational English may have difficulty with the academic language of textbooks. LEP students use gestures, visual cues, and voice inflections as comprehension clues in face to face conversation. This help is missing from printed materials. It may be necessary to substitute or adapt materials for LEP students. The following suggestions may help.

1. Provide materials in the student's native language if possible. Check the instruction booklet that came with new tools. These are sometimes printed in several languages.

2. If you must use a difficult text, use a highlighter to indicate key vocabulary and concepts. Reduce the amount of reading for a LEP student. Will the chapter summary provide the key information?

3. It may be necessary to rewrite some materials or develop unit study guides for LEP students. This is time consuming. To rewrite written materials to a level that can be read by the LEP student the following may be helpful.

   A. **Identify Key Concepts and Essential Details.**

      Determine important concepts you want all students to know when they have finished the lesson. Modify lesson objectives for LEP students if necessary.

   B. **Identify Key Vocabulary.**

      Determine what vocabulary is essential for discussion of the concept. Identify technical andd content vocabulary that will need to be introduced to the students. (It is also helpful if you pass this on to the the ESL teacher.)

C. Rewrite the Key Concepts and Essential Details in Language Consistent with Student's Ability.

a. Introduce redundancy.

Repeat key words and ideas, consistently using the same words to refer to a key concept.

Maintain nouns that could be replaced by pronouns.

Don't use a more difficult synonym for a common word.

b. Simplify the vocabulary.

Eliminate low frequency words, jargon, euphemisms and figurative speech unless you have previously defined them for the student.

Resist nominalization, making a verb a noun.

Give a narrative to illustrate abstract words.

Use symbols with words where possible.

c. Simplify sentence structure.

Present only one idea per sentence.

Shorten sentences. Generally the longer the sentence, the more difficult it is to understand.

Minimize the use of clauses.

Rearrange word order that may be confusing.

Present tense may be easier for beginning students of English.

Simplifying a text does not necessarily mean that the end product will be shorter.

TESTING THE LIMITED ENGLISH PROFICIENT STUDENT

In order to evaluate the limited English proficient (LEP) student effectively modification in the testing situation will probably be necessary.

Consider using an alternative testing format.

Allow students to take the test orally, either in English or in their native language if an interpreter is available.

Reduce the dependence on language in the testing situation by allowing students to demonstrate mastery by performance.

If available, permit students to take written tests in their native language.

Use a CLOZE passage to determine mastery. The first twenty words of a passage are printed and then every fifth word or key word is omitted. The student must fill in the correct word.

Prepare students for the test.

Familiarize students with the test format before the exam.

Provide students with model questions as part of the review activities.

Use the same language in class as you will use on the test.

Tell students specifically what material will be covered on the test.

Designing the test.

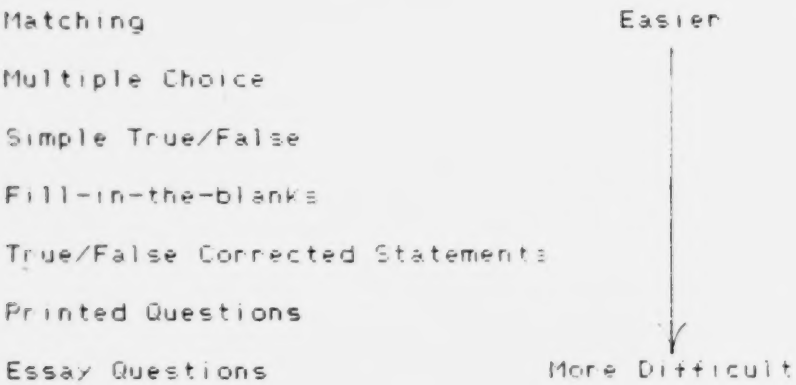
Test only what you have taught.

Only test course objectives.

Test one concept at a time.

Reduce the language dependence of the test.

Testing formats and degrees of complexity for the LEP student. *



Capitalize or underline words such as ALWAYS, ALL, NEVER.

Avoid negatively stated questions, especially in True/False sections.

Example: It is not necessary to avoid eating before going swimming.

Limit matching section to 10 items.

Multiple choice alternatives should be placed vertically.

Example: The capital of Oregon is

a) Salem
b) Portland
c) Eugene
d) Hermiston

Test Appearance

Type or print the test; do not use cursive.

Copies should be distinct, easy to read.

Provide ample margins and spacing.

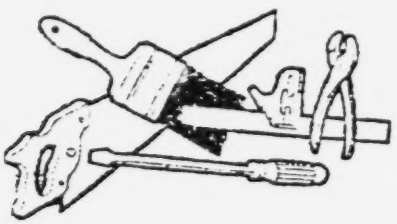
Provide lines to write on where the student needs to give a short answer or essay.

Adapt test procedures.

Provide both oral and written directions.

Consider giving the student unlimited time (within reason) to complete the test.

Allow students to ask questions for clarification of language.



adapted from:

"Language Development Handbook for Secondary Students With Limited Proficiency in English," Curriculum Support Series. Fabris, Mary; and others, Manitoba Department of Education, Winnipeg

"Vocational Education For Limited English Speaking Students: A Handbook for Educators. Vernon, Valerie, Temple University, Philadelphia, Pa. Department of Vocational Education

SECTION II

SAFETY MATERIALS

This section provides safety instructional materials and tests in both Spanish and English. The preparation of a "generic" test that would meet the needs of woodworking teachers from various school districts was no easy task. It proved impossible to develop materials without using exact figures. There were, however, several instances where there was no clear cut consensus among teachers as to what exact figure to use. In these cases, it was decided to use the figure that allowed the greatest margin of safety. Teachers are encouraged to modify these materials to their own requirements. If, for example, you require students to keep a tool rest adjusted to within 1/4 inch of the work, and the booklets indicate 1/8 inch, cross out the number and enter your corrected figure. Along the same lines, no indication is given on the tests as to the score needed for a passing grade. Each teacher should set his/her own standard.

Spanish, like English, has regional differences in vocabulary. What you call a skill saw, someone else calls a portable circular saw. The specialized vocabulary used in woodworking was a challenge to translate. The terminology used was decided upon after consulting several Spanish/English dictionaries. Just as English speaking students may need to be introduced to new vocabulary, the same is true for LEP students. Several Spanish speaking students have reviewed the materials and found word meanings clear from the context. The Spanish materials are not word for word translations, but provide the same information and concepts as the English version.

Name _____

GENERAL SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Students must pass the appropriate safety test before they will be permitted to use any machine.

   a) true b) false

2. When using any machine you must ...

   a) wear gloves.
   b) wear eye protection.
   c) both a & b

3. Before using any machine you should...

   a) roll up long sleeves.
   b) remove jewelry.
   c) tuck in loose clothing.
   d) all of the above (a,b, & c)

4. Check all lumber for nails, dirt, loose knots, or paint before using machinery.

   a) true b) false

5. The teacher must inspect a machine before the machine is used for a special operation.

   a) true b) false

6. _____ safety guards must be in place and used on all machines at all times.

   a) No (0)
   b) One of the (1)
   c) Two of the (2)
   d) All

7. Remove all tools and other materials from the machine before you turn on the power.

   a) true b) false

8. _____ is allowed inside the safety zone.

a) Only the teacher
b) The machine operator and two observers
c) Only the machine operator
d) Anyone

9. All machines must be _____ before you may clean, make ajustments, or change blades.

a) turned on
b) turned off
c) completely stopped
d) both b & c

10. Remove scraps of wood only when the machine is _____.

a) turned off.
b) completely stopped.
c) a & b
d) moving slowly.

11. Report <u>all</u> accidents, injuries, or malfunctioning machines to_____.

a) the teacher.
b) the principal.
c) your parents.
d) the janitor.

Nombre _____

PRUEBA DE LAS REGLAS GENERALES DE SEGURIDAD
General Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Los estudiantes tienen que pasar la prueba de seguridad apropiada antes de usar cualquier máquina.

   a) cierto b) falso

2. Cuando esta usando una maquina tiene que...

   a) usar guantes
   b) usar proteccion para sus ojos
   c) ambos, a & b

3. Antes de usar cualquier maquina tiene que...

   a) doblar sus mangas largas
   b) quitarse su joyeria
   c) arremangar la ropa suelta.
   d) todos los de arriba (a,b, & c)

4. Cheque su material para que no lleve clavos, tierra, nudos, o pintura antes de usar una máquina.

   a) cierto b) falso

5. Su maestro tiene que inspeccionar la máquina antes de que la máquina sea usada para una operacion especial.

   a) cierto b) falso

6. _____ de los protectores tienen que estar en su lugar y usar en todas las maquinas todo el tiempo.

   a) Ninguna (0)
   b) Una (1)
   c) Dos (2)
   d) Todas

7. Remueva todas las herrimientas y otros materiales de la máquina antes de encender la corriente.

   a) cierto b) falso

Prueba de Las Reglas Generales de Seguridad
General Safety Test

8. _____ puede(n) estar dentro del área de seguridad.

a) Sólo el maestro
b) El operador y dos observadores
c) Solo el operador de la máquina
d) Cualquier persona

9. Todas las maquinas tienen que estar _____ antes de limpiar, ajustar, o cambiar de hojas.

a) prendidas
b) apagadas
c) completemente paradas
d) ambos b & c

10. Remueva los fragmentos de madera cuando la máquina esté _____.

a) apagada.
b) completamente parada.
c) a & b
d) moviendose despacio.

11. Reporte <u>todos</u> los accidentes, heridas o máquinas imperfectos a _____.

a) el maestro.
b) el director.
c) sus padres.
d) el conserje.

Name _____

BAND SAW SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the band saw.

   a) true b) false

2. Disconnect power before changing the blade.

   a) true b) false

3. Adjustments must be made to the machine only when...

   a) it is completely stopped.
   b) it is cutting wood.
   c) the blade is moving slowly.
   d) all of the above (a, b, & c)

4. If the blade breaks, you should...

   a) step away from the machine
   b) turn off the power or unplug the machine
   c) inform the teacher of the broken blade
   d) all of the above

5. Do not allow anyone to stand on the left side of the machine.

   a) true b) false

6. Adjust the saw guide to within 1/4" of the thickness of _____.

   a) the blade
   b) the wood
   c) your fingers
   d) any of the above

20

Nombre _____

PRUEBA DE SEGURIDAD PARA EL SERRUCHO DE BANDA
Band Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando este trabajando cerca del serrucho de banda.

   a) cierto b) falso

2. Desconecte la corriente antes de cambiar la hoja.

   a) cierto b) falso

3. Ajuste la máquina sólamente cuando...

   a) esté completemente parada
   b) esté cortando madera
   c) la hoja este en movimiento
   d) todos los de arriba (a, b, & c)

4. Si se quiebra la hoja, tiene que...

   a) quitarse de la máquina
   b) apagar la corriente o desconectar la máquina
   c) informar al maestro
   d) todos los de arriba (a, b, & c)

5. No permita que nadie que se paren al lado izquierdo del serrucho.

   a) cierto b) falso

6. Ajuste la guia del serrucho a poco menos de 1/4" del espesor de _____.

   a) la hoja
   b) la madera
   c) sus dedos
   d) cualquiera de los de arriba

Name _____

JIG SAW SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the jig saw.

   a) true b) false

2. Disconnect power before changing blades.

   a) true b) false

3. Adjustments must be made to the machine only when...

   a) it is completely stopped.
   b) it is cutting wood.
   c) the blade is moving slowly.
   d) all of the above (a, b, & c)

4. Before using the jig saw,

   a) check the blade for the correct tension.
   b) inspect the wood for nails and other material.
   c) adjust the hold-down so it is as close as possible to the surface of the wood.
   d) all of the above.

5. Before beginning a cut,...

   a) turn the machine on to see if the blade breaks.
   b) turn the machine by hand to make sure that all the moving parts have clearance.
   c) all of the above
   d) none of the above

6. The teeth of the blade ...

   a) must be pointing up
   b) must be pointing down
   c) may point up or down

7. Thick or very hard woods require...

   a) faster speeds
   b) slower speeds

22

Nombre_____

PRUEBA DE SEGURIDAD PARA LA SIERRA MECÁNICA
Jig Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté trabajando cerca de la sierra mecánica.

   a) cierto b) falso

2. Desconecte la corriente antes de cambiar la hoja.

   a) cierto b) falso

3. Ajuste la máquina sólemente cuando...

   a) esté completemente parada
   b) esté cortando madera
   c) la hoja esté en movimiento
   d) todos los de arriba (a, b, & c)

4. Antes de usar la sierra mecanica,

   a) cheque la hoja para la tensión correcta
   b) inspeccione la madera que esta no traiga clavos o otros materiales
   c) ajuste el pie detenedor para que esté lo más cercano posible a la superficie de la madera
   d) todos los de arriba (a, b, & c)

5. Antes de empezar a cortar...

   a) prenda la máquina para ver si la hoja quiebra.
   b) dele una vuelta a la máquina con su mano para que esté seguro que todas las partes que semueven tienen espacio.
   c) todos de los de arriba
   d) ninguno de los de arriba

6. Los dientes de la hoja tienen que estar...

   a) apuntando hacia arriba
   b) apuntando hacia abajo
   c) apuntando hacia arriba o abajo

7. Madera gruesa o madera dura requiere...

   a) más velocidad
   b) ménos velocidad

Name _____

CIRCULAR SAW - TABLE SAW SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the table saw.

   a) true b) false

2. Disconnect power before changing blades.

   a) true b) false

3. Adjustments must be made to the machine only when...

   a) it is completely stopped.
   b) it is cutting wood.
   c) the blade is moving slowly.
   d) all of the above (a, b, & c)

4. When may you make free hand cuts?

   a) anytime
   b) never
   c) when cutting large boards
   d) when cutting small pieces of wood

5. When helping the machine operator to cut a large board, it is correct to...

   a) pull the board through the saw
   b) hold the board 6" higher than the table
   c) just support the board
   d) hold the board 6" lower than the table

6. Do not leave the machine area until...

   a) the blade is lowered below the table
   b) the machine is turned off
   c) the work area is clean
   d) all of the above

7. You may reach over the saw blade to remove scraps and clean the saw table when the blade is completely stopped.

   a) true b) false

Nombre_____

PRUEBA DE SEGURIDAD PARA EL SERRUCHO CIRCULAR
Circular Saw - Table Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté trabajando cerca del serrucho circular.

   a) cierto b) falso

2. Desconecte la corriente antes de cambiar la hoja.

   a) cierto b) falso

3. Ajuste la máquina solamente cuando...

   a) esté completemente parada
   b) esté cortando madera
   c) la hoja esté en movimiento
   d) todos los de arriba (a, b, & c)

4. Puede cortar con toda libertad cuando...

   a) en cualquier tiempo
   b) nunca
   c) cuando esté cortando madera larga
   d) cuando este cortando madera corta

5. Cuando esté ayudando el operador a cortar madera grande, es correcto ...

   a) jalar la madera entre el serrucho
   b) detener la madera 6" más arriba de la mesa
   c) solamente sostener la madera
   d) sostener la madera 6" más bajo de la mesa

6. No deje el área de la máquina hasta que...

   a) haya bajado la hoja abajo de la mesa
   b) haya apagado la máquina
   c) el área de trabajo esté limpia
   d) todos los de arriba (a, b, & c)

7. Puede alcanzar sobre la hoja a quitar madera hasta que la máquina esté complemente parada.

   a) cierto b) falso

Name_____ _____

RADIAL ARM SAW SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. You must use eye protection when working around the radial arm saw.

   a) true b) false

2. You may make ajustments to the saw when the blade...

   a) is completely stopped
   b) is cutting wood
   c) is moving
   d) all of the above (a,b, & c)

3. The wood must be flat on the table and against the fence at all times.

   a) true b) false

4. Pull the saw through the wood at a ...

   a) fast to moderate speed.
   b) moderate to slow speed.
   c) either of the above

5. Keep your hands _____ from the blade at all times.

   a) at the most 6"
   b) at the least 6"
   c) at the most 3"
   d) at the least 3"

6. Never cut more than_____ piece(s) of wood at one time.

   a) 3
   b) 2
   c) 1
   d) 5

7. Start the machine only when the saw is...

a) at the front of the saw table.
b) over the wood.
c) pushed back to the column.
d) near your fingers.

8. Do not leave the machine until...

a) the blade has stopped moving completely.
b) your teacher gives you permission.
c) the power is turned off
d) both a & c

Nombre_____

PRUEBA DE SEGURIDAD PARA EL SERRUCHO RADIAL DE BRAZO
Radial Arm Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar proteccion para sus ojos cuando este trabajando cerca del serrucho radial de brazo.

   a) cierto b) falso

2. Puede ajustar la máquina cuando la hoja...

   a) esté completamente parada
   b) esté cortando madera
   c) esté en movimiento
   d) todos los de arriba (a,b, & c)

3. La madera tiene que estar plana en la mesa y contra la barrera todo el tiempo.

   a) cierto b) falso

4. Estire el serrucho a través de la madera usando velocidad...

   a) rapido a templado.
   b) moderada a baja
   c) cualquiera de arriba "a" o "b"

5. Mantenga sus manos_____ de la hoja todo el tiempo.

   a) a lo más 6"
   b) a lo menos 6"
   c) a lo más 3"
   d) a lo menos 3"

6. Nunca corte mas que _____ pedazo(s) de madera a un tiempo.

   a) 3
   b) 2
   c) 1
   d) 5

28

Prueba de Seguridad Para El Serrucho Radial de Brazo
Radial Arm Saw Safety Test

7. Eche a andar la maquina nada mas cuando el serrucho este...

a) enfrente de la mesa del serrucho.
b) sobre la madera.
c) atrás contra el columna.
d) cerca de sus dedos.

9. No deje la máquina hasta que ...

a) la hoja esté completamente parada.
b) su maestro le de permiso.
c) la electricidad esté apagada.
d) ambos, a & c

Name_____

SABER SAW SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the saber saw.

   a) true b) false

2. Disconnect power before changing blades.

   a) true b) false

3. Install the blade with the teeth pointing ...

   a) up
   b) down
   c) either up or down

4. Before beginning to cut, make sure that...

   a) the blade is not touching the wood
   b) the wood is clamped to the workbench
   c) your fingers are clear of the path of the blade
   d) all of the above

5. Do not lift the machine out of a cut while the blade is moving.

   a) true b) false

Nombre _____

PRUEBA DE SEGURIDAD PARA EL SERRUCHO DE SABLE
Saber Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté trabajando cerca del serrucho de sable.

   a) cierto b) falso

2. Desconecta la corriente antes de cambiar la espada.

   a) cierto b) falso

3 Instale la hoja con los dientes apuntando por ...

   a) arriba
   b) abajo
   c) cualquiera de los dos

4. Antes de empezar a cortar, este seguro que ...

   a) la hoja no esta tocando la madera
   b) la madera está asegurada a la banca
   c) sus dedos estan fuera de la senda de la hoja
   d) todos los de arriba (a, b, & c)

5. No levante la máquina fuera del corte mientras que la hoja está moviendose.

   a) cierto b) falso

Name_____

PORTABLE CIRCULAR SAW (SKILL SAW) SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Before changing blades, you must...

   a) turn on the power
   b) disconnect the power
   c) either of the above

2. Start the saw with the blade touching the wood.

   a) true b) false

3. Before starting to cut, be sure...

   a) the wood is firmly supported
   b) the safety guard is in place
   c) all of the above
   d) none of the above

4. You may back up the saw when the saw is cutting.

   a) true b) false

5. Lift the saw out of the cut...

   a) while the blade is moving
   b) when the blade has stopped moving
   c) either of the above

Nombre_____

PRUEBA DE SEGURIDAD PARA EL SERRUCHO CIRCULAR PORTATIL
Skill Saw Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Antes de cambiar la hoja, tiene que...

   a) prender la corriente
   b) desconecter la corriente
   c) cualquiera de los de arriba

2. Eche a andar el serrucho cuando la hoja esté tocando la madera

   a) cierto b) falso

3. Antes de empezar a cortar ...

   a) tiene que sostener asegurada la madera
   b) esté seguro que el implemento de proteccion está en su lugar
   c) todos de los de arriba
   d) ninguno de los de arriba

4. Retroceda el serrucho mientras que corta.

   a) cierto b) falso

5. Levante la máquina fuera del corte...

   a) mientras que la hoja está moviéndose
   b) cuando la hoja no está moviendose
   c) cualquiera de los de arriba

Name_____

JOINTER SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. You must use eye protection when using the jointer.

   a) true b) false

2. You may make adjustments to the machine when ...

   a) the jointer is completely stopped
   b) the blades are moving slowly
   c) both of the above, a & b

3. Keep the safety guard in place and ready to use at all times

   a) true b) false

4. Never use the jointer for wood that is less than _____.

   a) 12" long
   b) 1/2" thick
   c) 8" long or 1/2" thick
   d) 1/8" thick

5. Always stand _____ of the infeed table.

   a) to the right
   b) to the left
   c) in the middle
   d) any of the above, a, b, & c

6. Never make cuts deeper than _____.

   a) 1"
   b) 1/2"
   c) 1/4"
   d) 1/8"

7. Keep your hands at least 6" away from the cutterhead area at all times.

   a) true b) false

34

Nombre_____

PRUEBA DE SEGURIDAD PARA LA JUNTERA
Jointer Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté usando la juntera.

   a) cierto b) falso

2. Ajuste la máquina sólamente cuando...

   a) la juntera esté completamente parada
   b) los cuchillos se esten mueviendo despacio
   c) ambos de arriba, a & b

3. Mantenga el resguardo de seguridad en su lugar y listo para usarse todo el tiempo.

   a) cierto b) falso

4. Nunca usa la juntera para madera de menos de _____.

   a) 12" largo
   b) 1/2" de espesor
   c) 8" largo o 1/2" de espesor
   d) 1/8" de espesor

5. Tiene que estar al lado _____ de la mesa frontal.

   a) derecho
   b) izquierdo
   c) atras
   d) ninguno de los de arriba

6. Nunca haga cortes más profundos que _____.

   a) 1"
   b) 1/2"
   c) 1/4"
   d) 1/8"

7. Mantenga sus manos por lo menos 6" del área de los cuchillos todo el tiempo.

   a) cierto b) falso

Name_____

PLANER SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection is required when using the planer.

   a) true b) false

2. Stand_____ of the planer when the machine is operation.

   a) in back
   b) in front
   c) to the side
   d) all of the above (a, b, & c)

3. When using the planer, your fingers should <u>not</u> be...

   a) between the wood and the table.
   b) by the front opening.
   c) by the rear opening.
   d) all of the above (a, b & c)

4. Do not use the planer for wood that is _____.

   a) less than 1/2" thick.
   b) less than 1/4" thick.
   c) more than 1/2" thick.
   d) more than 1/4" thick.

5. Before you leave the planer, you should...

   a) wait for the machine to completely stop.
   b) turn the power off.
   c) clean the work area.
   d) all of the above.

6. When the machine is operating...

   a) do not make adjustments, except for height
   b) do not look into the planer
   c) all of the above
   d) none of the above

Nombre_____

PRUEBA DE SEGURIDAD PARA EL ACEPILLADOR
Planer Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar proteccion para sus ojos cuando este usando el acepillador.

   a) cierto b) falso

2. Tiene que estar_____ del acepillador cuando la maquina este operando.

   a) atras
   b) enfrente
   c) al lado
   d) todos de los de arriba (a, b, & c)

3. Cuando este usando el acepillador, sus dedos no deben estar...

   a) entre la madera y la mesa.
   b) cerca de la frente.
   c) cerca del lado posterior.
   d) todos los de arriba (a, b & c)

4. Nunca use el acepillador para madera _____.

   a) de menos de 1/2" de espesor.
   b) de menos de 1/4" de espesor.
   c) de mas que 1/2" de espesor.
   d) de mas que 1/4" de espesor.

5. Antes de dejar el acepillador, debe...

   a) esperar hasta que la maquina este parada.
   b) apagar la corriente.
   c) limpiar el area de trabajo.
   d) todos los de arriba (a, b, & c)

6. Cuando la maquina este operando...

   a) nunca ajuste el acepillador, con excepcion de la altura
   b) nunca mire adentro del acepillador
   c) todos los de arriba
   d) ninguno de los de arriba

Name_____

LATHE SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the lathe.

   a) true b) false

2. All adjustments must be made when the lathe is at a complete stop, except the speed setting on variable speed models.

   a) true b) false

3. Each time you start the lathe you should...

   a) check all lumber for defects
   b) make sure your material is properly mounted
   c) rotate your material by hand to check clearance
   d) all of the above

4. The tool rest should be adjusted to within 3 inches of your work.

   a) true b) false

5. Start the lathe at...

   a) the fastest speed
   b) medium speed
   c) the slowest speed
   d) any speed

6. To stop wood from revolving, use your hands.

   a) true b) false

Nombre_____

PRUEBA DE SEGURIDAD [ARA EL BANCO DE CARPINTERO
Lathe Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuanto esté trabajando cerca del banco de carpintero.

   a) cierto b) falso

2. Ajuste la maquina solamente cuando el banco de carpintero esté completamente parado con excepción de la velocidad de las máquinas con velocidad variable.

   a) cierto b) falso

3. Cada vez que use el banco de carpintero, debe...

   a) ver que su material no lleve defectos
   b) estar seguro de que su material este engastado correctamente.
   c) dar vuelta manualmente para ver si hay espacio libre
   d) todos de los arriba

4. El descánso de herramientas debe estar ajustado de 3 pulgadas de su trabajo.

   a) cierto b) falso

5. Eche a andar el banco de carpintero a la...

   a) velocidad mas rápida
   b) velocidad mediana
   c) velocidad mas baja
   d) cualquier velocidad

6. Para parar madera que esté girando, use sus manos.

   a) cierto c) falso

Name_____

DRILL PRESS SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the drill press.

   a) true b) false

2. All adjustments must be made when the machine is completely stopped except...

   a) depth and the speed on variable speed models
   b) inserting bits
   c) changing belts
   d) none of the above

3. Remove the chuck key...

   a) when you have completed your work
   b) before turning on the machine
   c) immediately after using it
   d) none of the above

4. Before the bit is put in the chuck, ...

   a) check the speed of the drill
   b) make sure it is an approved type bit
   c) all of the above
   d) none of the above

5. When drilling deep holes,...

   a) withdraw the drill bit frequently
   b) ease up on the feed pressure before the drill bit breaks through the back of the wood.
   c) all of the above
   d) none of the above

6. Stop spinning stock with your hands.

   a) true b) false

40

Nombre _____

PRUEBA DE SEGURIDAD PARA EL TALADRO DE PRENSA
Drill Press Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuanto esté trabajando cerca del taladro de prensa.

   a) cierto b) falso

2. Ajuste la máquina sólamente cuando el taladro de prensa esté completamente parada con excepción de...

   a) la profundidad y la velocidad de las máquinas con velocidad variable
   b) poniendo brocas
   c) cambiando fajas
   d) ninguno de arriba

3. Quite la llave del plato de torno ...

   a) cuando termina su trabajo
   b) antes de prender la máquina
   c) immediatamente después de usar la
   d) ninguno de arriba

4. Antes de poner la broca en el mango, ...

   a) cheque la velocidad del taladro
   b) asegúrese de que la broca esté aprobada
   c) todos de los arriba
   d) ninguno de los de arriba

5. Cuando esté haciendo hoyos hondos...

   a) retire el taladro frecuentemente
   b) afloje la presión de pasaje antes de que la broca atraviese la madera
   c) todos de los arriba
   d) ninguno de los de arriba

6. Pare con sus manos la madera que este dando vuelta.

   a) cierto b) falso

41

Name _____

PORTABLE DRILL SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when working around the portable drill.

   a) true b) false

2. Disconnect power before changing the drill bit.

   a) true b) false

3. When installing a bit in the drill...

   a) make sure the drill is unplugged
   b) remove the chuck key immediately after using it
   c) both a & b
   d) none of the above

4. Make sure the switch is in the "on" position before plugging in the drill.

   a) true b) false

5. Keep the drill, electric cord, and plug wet at all times.

   a) true b) false

6. Just before the drill breaks through the wood...

   a) apply downward pressure
   b) ease up on the pressure
   c) remove the drill from the wood
   d) turn off the drill

Nombre _____

PRUEBA DE SEGURIDAD PARA EL TALADRO PORTATIL
Portable Drill Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté trabajando cerca del taladro portable.

   a) cierto b) falso

2. Desconecta la corriente antes de cambiar la broca.

   a) cierto b) falso

3. Cuando esta poniendo una broca...

   a) está seguro que el taladro esta desconectado
   b) quita la llave de plato de torno immediatamente despues de usarlo
   c) ambos, a & b
   d) ninguno de arriba

4. Está seguro que el botón de taladro está apagado antes de que lo conecte.

   a) cierto b) falso

5. Mantenga el taladro, la cuerda eléctrica, y clavija de conexión secos todo el tiempo.

6. Antes de que el taladro pase por la madera...

   a) use presión descendente
   b) afloje la presión
   c) levante el taladro
   d) apage el taladro

Name _____

ROUTER SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when using the router.

   a) true b) false

2 You must disconnect the power before...

   a) changing bits
   b) making adjustments
   c) all of the above
   d) none of the above

3. When not using the router, place it...

   a) on its side
   b) on the base
   c) either of the above
   d) none of the above

4. It is better to make one deep cut instead of several shallow cuts.

   a) true b) false

5. When using the router table, feed the wood...

   a) from left to right
   b) from right to left
   c) either

6. Insert the shaft of the router bit at least _____ inch into the chuck.

   a) 1/2
   b) 1
   c) 2
   d) none of the above

Nombre _____

PRUEBA DE SEGURIDAD PARA EL CEPILLO DE MACHIHEMBRAR
Router Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando esté usando el cepillo de machihembrar.

   a) cierto b) falso

2. Debe desconectar la corriente antes de...

   a) cambiar la broca
   b) ajustar la máquina
   c) todos los de arriba
   d) ninguno de los de arriba

3. Cuando no está usando el cepillo de machihembrar, la máquina debe de estar...

   a) ladeada
   b) en su base
   c) cualquiera de los dos
   d) ninguno de los dos

4. Es mejor hacer un corte hondo en vez de varios cortes superficiales.

   a) cierto b) falso

5. Cuando esté usando la mesa de cepillo de machihembrar, pase la madera...

   a) de su izquierda a su derrecho
   b) de su derecha a su izquierda
   c) cualquiera de los dos

6. La columna de la broca tiene que estar a lo menos _____ dentro del plato de torno.

   a) 1/2"
   b) 1"
   c) 2"
   d) ninguno de los de arriba

Name_____

SANDERS SAFETY TEST

CIRCLE THE LETTER OF THE CORRECT ANSWER FOR EACH OF THE QUESTIONS BELOW.

1. Eye protection must be worn when using the sanders.

   a) true b) false

2. Belts, discs, and sandpaper may be changed when...

   a) the machine is operating
   b) the machine is completely stopped
   c) the machine is unplugged
   d) both b & c

3. When using a portable sander, wood should be secured with...

   a) nails
   b) your hands
   c) clamps or a vise
   d) all of the above

4. When using a portable sander, place the cord...

   a) over your shoulder
   b) away from the sander belt and pad
   c) all of the above
   d) none of the above

5. When using the spindle sander...

   a) use light pressure
   b) keep the wood moving at all times
   c) sand only inside curves
   d) all of the above

6. When using the floor model belt sander you must...

   a) be sure the belt "tracks" in the center of the machine
   b) keep you fingers 2" away from the belt
   c) use the entire width of the belt
   d) all of the above
   e) none of the above

Nombre_____

PRUEBA DE SEGURIDAD PARA LOS LIJADORES
Sanders Safety Test

ENCIERRE EN UN CIRCULO LA LETRA DE LA RESPUESTA CORRECTA A CADA UNA DE LAS SIGIENTES PREGUNTAS.

1. Tiene que usar protección para sus ojos cuando está usando los lijadores.

   a) cierto b) falso

2. Puede cambiar fajas, discos, y papel de lija cuando...

   a) la máquina está operando
   b) la máquina está completamente parada
   c) la maquina está desconectada
   d) ambos "b" y "c"

3. Cuando esta usando el lijador portátil, la madera debe estar asegurada con

   a) clavos
   b) sus manos
   c) grapas o tornillo de banco
   d) todos los de arriba

4. Cuando está usando el lijador portátil, ponga el cordón...

   a) sobre su hombro
   b) lejos de la faja y la almohadilla
   c) todos los de arriba
   d) ninguno de los de arriba

5. Cuando está usando el lijador de huso...

   a) use presión ligera
   b) mantenga la madera en continuo movimiento
   c) lije nomás dentro de las curvas
   d) todos los de arriba

6. Cuando está usando el lijador de faja debe...

   a) estar seguro que la faja este moviendose en el centro de la maquina
   b) mantenga sus dedos 2" de la faja
   c) use toda la anchura de la faja
   d) todos los de arriba
   e) ninguno de los de arriba

SAFETY TEST ANSWER KEY

General Safety

1. A
2. B
3. D
4. A
5. A
6. D
7. A
8. C
9. D
10. C
11. A

Band Saw

1. A
2. A
3. A
4. D
5. B
6. B

Jig Saw

1. A
2. A
3. A
4. D
5. B
6. B
7. B

Table Saw

1. A
2. A
3. A
4. B
5. C
6. D
7. A

Radial Arm Saw

1. A
2. A
3. A
4. B
5. B
6. C
7. C
8. D

Saber Saw

1. A
2. B
3. A
4. D
5. A

Skill Saw

1. B
2. B
3. C
4. B
5. B

Jointer

1. A
2. A
3. A
4. C
5. B
6. D
7. A

Planer

1. A
2. C
3. D
4. B
5. D
6. C

Lathe

1. A
2. A
3. D
4. B
5. C
6. B

Drill Press

1. A
2. A
3. C
4. C
5. C
6. B

Portable Drill

1. A
2. A
3. C
4. B
5. B
6. B

Router

1. A
2. C
3. A
4. B
5. B
6. B

Sanders

1. A
2. D
3. C
4. C
5. D
6. D